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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,795	04/30/2001	Marten Stjernstrom	P0214	3545

26271 7590 07/27/2006

FULBRIGHT & JAWORSKI, LLP
1301 MCKINNEY
SUITE 5100
HOUSTON, TX 77010-3095

EXAMINER	
HANDY, DWAYNE K	

ART UNIT	PAPER NUMBER
1743	

DATE MAILED: 07/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/830,795	STJERNSTROM, MARTEN	
	Examiner	Art Unit	
	Dwayne K. Handy	1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 May 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *6-12 and 14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *6-12 and 14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

2. Claims 6-8, 10, 12 and 14 were previously rejected under 35 U.S.C. 103(a) as being unpatentable over Litborn (WO 98/33052) in view of Hawkins et al. (5,198,353).

Claims 9 and 11 were previously rejected under 35 U.S.C. 103(a) as being unpatentable over Litborn (WO 98/33052) in view of Hawkins et al. (5,198,353), and further in view of Mian (6,319,469).

These rejections remain in effect. Please see Response to Arguments below.

Response to Arguments

3. Applicant's arguments filed 5/8/06 have been fully considered but they are not persuasive. In traversing the rejection under Litborn and Hawkins, Applicant has argued the following: (1) Acetone may or may not be miscible with the solution and (2) Hawkins is not relevant art. The Examiner respectfully disagrees on both counts.

4. Re: Acetone miscibility

The Examiner directs Applicant to column 3, lines 27-31 of Hawkins. In this passage, Hawkins discusses the choice of precipitant – which maybe an organic solvent: "Alternatively, the precipitant **may be an organic solvent. The solvent should be partly or fully miscible with water and should be able to precipitate the polymer**. Example of suitable solvents are, in the case of PVP: **acetone**, and in the case of PVA: **acetone or ethanol**." This is a recitation of an organic solvent – acetone – that is miscible with an aqueous solution containing a polymer.

5. Re: Hawkins

Applicant has argued that one of ordinary skill in the art would not be motivated to combine Hawkins with Litborn since Hawkins is not in the field of sample volume stability. This is a spurious argument. The Examiner notes that the issue of replenishing or continual delivery of solvent to the microarea is NOT the reason for adding Hawkins to Litborn. Litborn clearly teaches the replenishment of covering solvent through continuous delivery of covering liquid without the need for Hawkins (see

Figures 2A, 3A, and 3B). The Examiner is relying on Hawkins for a teaching of a solvent that is miscible with an aqueous sample.

6. Applicant has also argued that the combination of Hawkins with Litborn would result in a process that is incompatible with it's intended use(s). The Examiner disagrees. As previously noted by the Examiner, Litborn explicitly discloses the use of a covering liquid that "is chosen so as to interact with reaction products" (claim 10) or "is chosen so as to have the ability of extracting components from the sample" (claim 13). Litborn also recites that the sample is "selected from biomolecules, especially peptides, proteins, e.g. enzymes and nucleic acids, e.g. DNA" (claim 20). Litborn also teaches a method – see Figure 4 – in which the reaction products are formed, then are recovered by evaporation of the covering liquid, and then mixed back into a solvent. Litborn simply does not recite that the covering solvent that is miscible with the sample liquid. Hawkins teaches the use of a solvent that is miscible with water – acetone - to mix with and precipitate proteins from an aqueous solution. Litborn teaches reactions in an aqueous sample solution covered by a continuously added covering solvent. The use of acetone (as suggested by Hawkins) as the solvent, then, would allow for the continuous addition of a covering solvent that also extracts proteins from the covered sample solution. This would eliminate the need for an evaporation step (again, from Figure 4 of Litborn) to recover the protein(s) in the sample liquid.

7. Applicant has also argued that constant addition of acetone would increase the acetone content to the point that compounds would be damaged. Applicant appears to overlook that the method includes the *replacement of evaporating solvent* and therefore would not result in an accumulation of acetone that would be harmful to the reaction products. In addition, the method of Hawkins is contingent upon the addition of acetone for precipitation without damaging the protein. That is, the purpose of precipitating the protein in Hawkins for recovery. Therefore, one of ordinary skill in the art would recognize the amount of acetone required to recover the protein without damage.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwayne K. Handy whose telephone number is (571)-272-1259. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571)-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DKH
July 24, 2006

Jill Warden
Supervisory Patent Examiner
Technology Center 1700